

NGAC Landsat Advisory Group (LAG) Subcommittee Report



NGAC Meeting
September 8, 2022

Frank Avila, LAG Chair
Roberta (Bobbi) Lenczowski, LAG Vice-Chair

LAG Mission

Provide advice to the Federal Government, through the Department of the Interior National Geospatial Advisory Committee,
on the requirements, objectives and actions of the Landsat Program
as they apply to continued delivery of societal benefits for the Nation and the global Earth observation community

LAG was established in April 2012 as a subcommittee under the NGAC.

LAG 2022 Membership

Name	Organization
Frank Avila (<i>LAG Chair, NGAC Member</i>)	<i>National Geospatial-Intelligence Agency (NGA)</i>
Bobbi Lenczowski (<i>LAG Vice-Chair, NGAC Member</i>)	<i>Roberta E. Lenczowski Consulting</i>
Vasit Sagan (<i>NGAC Member</i>)	<i>Saint Louis University</i>
Mariel Borowitz	<i>Georgia Institute of Technology</i>
Steven Brumby	<i>Impact Observatory, Inc</i>
Keith Masback	<i>Plum Run, LLC</i>
Anne Hale Miglarese	<i>Miglarese Consulting</i>
Robbie Schingler	<i>Planet</i>
Walter Scott	<i>MAXAR</i>
Federal Contacts: Tim Newman, Tim Stryker, Greg Snyder, Peter Doucette <i>USGS/National Land Imaging Program</i>	

Published LAG Reports

[Landsat in the Cloud – May 2022](#)

[Revisiting the Land Remote Sensing Policy Act of 1992 – April 2021](#)

[Formulating a Big Data Science Challenge for Land Imaging Time-Series Data – April 2021](#)

[Landsat Data: Community Standard for Data Calibration – October 2020](#)

[Evaluation of a Range of Landsat Data Cost Sharing Models – June 2019](#)

[Landsat Future Mission Recommendations – April 2018](#)

[Landsat Data Cube Feasibility for Forecasting – April 2018](#)

[Analysis of Non-Federal Landsat User Requirements – June 2016](#)

[Sentinel Data Use Policies – December 2015](#)

[The Value Proposition for Landsat Applications – December 2014](#)

[Cloud Computing: Potential New Approaches to Data Management and Distribution – December 2013](#)

[Comments on NRC Report: Landsat and Beyond: Sustaining and Enhancing the Nation's Land Imaging Program – December 2013](#)

[Product Improvement – Advice USGS on Potential Means of Modifying the Current Products to Make Them More Useful to](#)

[Commercial Information Providers and Value-added Analysts – December 2013](#)

[Statement on Landsat Data Use and Charges – September 2012](#)

[The Value Proposition for Ten Landsat Applications – September 2012](#)

Documents can be accessed at www.fgdc.gov/ngac/key-documents

2021 LAG Task #2 Paper

❖ **Task: Where is the “Water’s Edge” of NLI Scope?**

Since Federal resources are limited, and we are in a “phase shift” in the Earth Observation community, what earth observation products should the Federal government wisely provide to optimize benefit to the public. USGS seeks recommendations about products it should be investing in, including Level-1, -2, and -3 products.

❖ **Team:** Robbie Schingler (Lead), Frank Avila, Steve Brumby, Bobbi Lenczowski, Anne Miglarese, Vasit Sagan, and May Yuan

❖ **Status:** Draft paper approved by the LAG on July 28, 2022. LAG will seek NGAC approval during September 2022 NGAC meeting.

2021 LAG Task #2 Paper: Motion to Approve

❖ Key Findings:

- Finding #1:** The earth observation landscape transformation includes an explosion in the accessibility of earth observation data, both from new sensors coming online and its availability on cloud platforms and the rise of ‘Analysis Ready Data (ARD) Harmonization’ products.
- Finding #2:** There is a possibility that diverse disaggregated sensors from different countries and companies can all contribute to a coherent, consistent record of change on earth.
- Finding #3:** A harmonized ARD baseline can provide a foundation for many higher level data products like biophysical measurements, land classifications and change monitoring.

❖ Key Recommendations:

- Recommendation #1:** USGS should work with NIST, OGC and ISO to create the standards that would underpin harmonized analysis ready data. This will likely require CEOS agencies’ resourcing, as well as targeted work on Cal/Val and WGISS to support international standards.
- Recommendation #2:** Standards must account for sensors of differing quality than Landsat and Sentinel 2, incorporating them into the global commons with clear communication of quality.
- Recommendation #3:** USGS should continue to produce higher level science products built on the harmonized data baseline provided to other users, and the USGS should seek out international government, likely in participation in CEOS, and public-private-partnerships to encourage a wide range of valuable measurements of our planet’s health.

2022 LAG Task #1 Paper: General Topic

- ❖ Reflect on the content of the Landsat archive and its continuing acquisitions, along with contributions from international and commercial vendors
- ❖ Examine any evolution or new trends in what data “products” are being requested by users, particularly in the “Cloud” era
(images, pixels, time series, ...)
- ❖ Consider recommendations on what the National Land Imaging Program should offer to users in the 2030 timeframe. (content, format, delivery approach, Level of processing, predictive and/or analytical support, ...)

LAG 2022 Activities in Phases (CY 2022 and CY2023)

Phase 1 – Prior to January 2023

Complete: 2021 Task 1 and 2 Papers and have published at FGDC/NGAC website
Present: 2021 Task 1 Paper Findings and Recommendations at Pecora 22
Finalize: 2022 Task 1 description statement
Assign: 2022 Task Paper 1 leads
Refine focus of paper
Begin examination of known “metrics” data

Phase 2 – During Calendar Year 2023

Complete: 2022 Task Paper 1
Update: LAG Bylaws
Add: New members to LAG
Finalize: 2022 Task 2 description statement
Assign: 2022 Task Paper 2 leads prior to June 2023 NGAC Meeting

LAG – 2022 Timeline/Next Steps

Name	Date
Subcommittee meeting to approve CY2021 Task 2 paper	July 28, 2022
Subcommittee initial discussions about new CY2022 tasks	July 28, 2022
Meeting to continue discussion on likely CY2022 tasks	August 5, 2022
September 2022 NGAC meeting and LAG status report	September 7-8, 2022
LAG Subcommittee meetings	(September, October, tbd)
December 2022 NGAC meeting and LAG status report	December 6-7, 2022
Subcommittee meetings	(December, tbd)